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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,633	12/17/2001	Scott E. Silver	500035.401	2741

500 7590 08/27/2003

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

7

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

Office Action Summary	Application No. 10/024,633	Applicant(s) SILVER ET AL.	
	Examiner Tamra L. Dicus	Art Unit 1774	

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the amendment filed 6-12-03. The 112 and 102(e) rejections are withdrawn due to Applicant's amendment. Cancellation of claims 1-23 and 44-65 is acknowledged.

Claim Objections

1. Claim 26 is objected to because of the following informalities: "styreneacrylic" should be separated into two words including a space between the two words, i.e. "styrene" "acrylic". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24-25, 26 (amended), 28-37, and 39 (amended)-43 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,919,552 to Malhotra.

Malhotra teaches a coated substrate and method of doing so. A coating layer of a copolymer or mixture derived from styrene and acrylic (functional equivalent to styrene acrylic or acrylic emulsion/compounded acrylic-instant claims 26 and 39), wax, clay (antiblock filler), calcium carbonate, a pigment, may be inorganic like titania. See col. 13, lines 36-52 teaching paraffin wax added in amounts from 0.25 to 3%, meeting claim 36. Malhotra teaches at col. 3, lines 30-40 various paper substrates and at line 65-68 teaches the substrates can be from 50 to

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500 microns thick and may be outside these ranges, meeting the range of claims 40-42. At col. 10, lines 15-45, Malhotra explains adding fluorescent chemical compounds that convert UV radiation to visible radiation at the blue end of the spectrum and known as fluorescent whitening agents or optical brighteners are derived from stilbene, coumarine and naphthalimide. Other fluorescent brighteners are derived from fluorescent dyes as well as polymeric dyes such as polymeric phthalocyanines, and the like. Commercially sold pigment colors are dispersed in polymers such as polyamide or triazine-aldehyde-amide (addressing claims 24, 35, 37) and are available from Day-Glo Color Corporation, such as Day-Glo-A-Series. See also col. 14, lines 20-45. Malhotra's patented claim 9 includes a coating composition of titanium dioxide, hydrated alumina, barium sulfate, calcium carbonate, and high brightness clays (any may be a filler for tooth property) from 0.5 to 20 parts by weight, meeting claims 24, and 30-35. The moisture content is inherent since the same weights are used.

Malhotra teaches at col. 13, lines 36-52 teaching paraffin wax added in amounts from 0.25 to 3%, which are suitable ranges in a coated sheet for release and printability improvements, meeting range of claims 28 and 29. The moisture content is inherent since the same material and weight percentages are included.

The printed images of claims 19-21 and 55 are provided to the sheet of Malhotra, since Malhotra teaches an image receiving sheet and states his sheet is suited for images to be printed on it, see col. 27, lines 15-22. That the images are printed by means of lithography... are process limitations in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the

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invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

Regarding claim 24. Malhotra teaches at col. 10, lines 15-45 adding an optical brightener. Malhotra explains adding fluorescent chemical compounds that convert UV radiation to visible radiation at the blue end of the spectrum and known as fluorescent whitening agents or optical brighteners.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,919,552 to Malhotra in view of USPN 6,028,028 to Nitta.

Malhotra essentially teaches the claimed invention as relied upon above. Malhotra does not teach the coating weight -3.7 to 5.6 g/m² of claim 27. Nitta teaches a water-proof sheet for laser printing comprising a cellulosic substrate (paper), a coating layer of a copolymer or mixture derived from styrene and acrylic, wax, clay (antiblock filler), calcium carbonate (filler for tooth property), a pigment, may be inorganic like kaoline or titania. At col. 11, line 55 Nitta teaches the coating weight is between 2 and 12 g/m², meeting the claimed range of Applicant (3.7 to 5.6 g/m² of claim 27). Hence, it would have been obvious to one of ordinary skill in the art to

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modify the coated substrate of Malhotra to add a coating weight of 3.7 to 5.6 g/m² since Nitta teaches it is a suitable range to use for laser printing.

As recited above, Malhotra teaches col. 13, lines 36-52 teaching paraffin wax added in amounts from 0.25 to 3%, meeting range of claims 28 and 29. Malhotra is silent to teaching a copolymer or mixture from 30 to 63 percent. Nitta teaches at col. 11, lines 10-15 a copolymeric mixture ranging from 2 to 40 weight %, meeting Applicant's claimed ranges 30-63% of claims 28 and 29. The moisture content is inherent since the same material and weight percentages are included. Hence it would have been obvious to one of ordinary skill in the art to modify the substrate of Malhotra to include the copolymeric mixture % because Nitta teaches adding these suitable ranges in a sheet for dispersion mediums as taught by Nitta at col. 11, lines 1-15.

Claim Rejections - 35 USC § 103

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,028,028 to Nitta in view of USPN 5,919,552 to Malhotra

Nitta teaches a water-proof sheet for laser printing comprising a cellulosic substrate (paper), a coating layer of a copolymer or mixture derived from styrene and acrylic, wax, clay (antiblock filler), calcium carbonate (filler for tooth property), and a pigment which may be inorganic like kaoline or titania. Since the pigment and resins are included in the mixture, they are dispersed as well. See col. 9, lines 1-11, col. 11, lines 4-15, 40-55 and col. 12, lines 1-15. The fillers may also include barium sulfate and calcined clay. See col. 12, lines 61-68. Additives may include metal salts of fatty acids and paraffin wax at col. 11, lines 15-35.

While Nitta does not refer to his water-proof sheet as a weatherproof sheet, the Examiner takes the position since the same materials are included, the sheet of Nitta includes the sheet of

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the invention as it acts as a functional equivalent. Additionally, the reference states that the sheets are waterproof which encompasses weatherproof.

Nitta essentially teaches the claimed invention, as relied upon above. Nitta does not teach adding optical brighteners of claim 24. Hence it would have been obvious to one of ordinary skill in the art to modify the sheet of Nitta to add optical brighteners since Malhotra teaches the advantage of providing visible radiation. Malhotra teaches at col. 10, lines 15-45 adding an optical brightener. Malhotra explains adding fluorescent chemical compounds that convert UV radiation to visible radiation at the blue end of the spectrum and known as fluorescent whitening agents or optical brighteners. Hence it would have been obvious to one of ordinary skill in the art to modify the sheet of Nitta to add optical brighteners since Malhotra teaches the advantage of providing visible radiation.

As cited above, Nitta teaches at col. 11, lines 10-15 a copolymeric mixture ranging from 2 to 40 weight %, meeting Applicant's claimed ranges 30-63% of claims 28 and 29. However, Nitta is silent to adding wax in the percentages claimed. Malhotra teaches col. 13, lines 36-52 teaching paraffin wax added in amounts from 0.25 to 3%, meeting range of claims 28 and 29. Hence, one would be motivated to combine wax with the sheet of Nitta since Malhotra teaches adding wax in the range percentage claimed improves printability as cited above.

Response to Arguments

Applicant argues that Malhotra does not exclude titanium dioxide and calcium carbonate from the coating because the ingredients have been found to foul equipment. First, Applicant does not totally exclude titania or calcium carbonate because Applicant's claim language recites, "substantially no". Malhotra meets this limitation because Malhotra teaches in patented claim 9

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including a coating composition of titanium dioxide, hydrated alumina, barium sulfate, calcium carbonate, and high brightness clays from 0.5 to 20 parts by weight. Secondly, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., fouling equipment) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant's arguments are not persuasive.

Applicant alleges that Nitta does not teach impregnantly covering a cellulosic substrate. Nitta teaches the same cellulosic substrate, the structure containing a woven or nonwoven substrate with the same coatings over the substrate. The coatings inherently provide an impregnated covering. Furthermore, "impregnantly covering" is a process limitation and is not dispositive of the issue of patentability of the article claim. Regarding Applicant's argument toward the "weatherproof" property, such property is taught since the same materials and coating weights are taught. Additionally, the reference states that the sheets are waterproof which encompasses weatherproof. Applicant's arguments are not persuasive.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

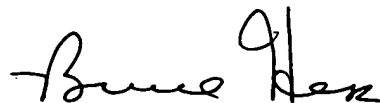
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

August 19, 2003

A handwritten signature in black ink, appearing to read "Bruce Hess", with a stylized flourish at the end.

BRUCE H. HESS
PRIMARY EXAMINER